

High day count of migrating Steppe Eagles *Aquila nipalensis* in Suez, Egypt, March 1985

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The population of the Steppe Eagle *Aquila nipalensis* has been in decline for decades and the species is globally Endangered (BirdLife 2016). The decline was reported both on the breeding grounds and on passage (BirdLife 2016, Yosef & Fornasari 2004). The main reason for the decline seems to be large scale habitat change in the steppe regions of Asia which are under pressure from agriculture and overgrazing. Electrocutation on power line pylons seems to be an additional factor, which also affects the eagles on passage and in winter. There is also direct persecution. Steppe Eagles migrate in daytime and are thus detectable by observers, if not flying too high. Like other soaring birds they depend on thermals and congregate at 'bottlenecks'. Counts of migrating Steppe Eagles have been presented for Suez, Egypt (eg Bijlsma 1983, Bruun 1985, Ullman 1985), Eilat, Israel (eg Shirihai & Christie 1992, Leshem 1994) and the Bab-el-Mandeb straits between Yemen and Djibouti (Welch & Welch 1989). Here we present day counts of Steppe Eagles and other raptors from Suez in March 1985.

In March and April 1985 we were on a birding trip through Egypt and Jordan and spent 13 and 14 March in Suez. We were based in the youth hostel at the northern tip of the gulf of Suez and used the flat roof of that building for our migrant counts. The coastline around this location has changed since due to land reclamation and development of a large industrial area. The youth hostel was along the Hurghada–Al Ismaileya road at c 29° 57' 43" N, 32° 32' 25" E and some 200 m from the shoreline.

We counted migrants on both days from the rooftop between 9.00–16.00 h, scanning with binoculars to find birds and using telescopes to identify them. ID aid in those times was Porter *et al* (1976), which was perfect for species identification, but insufficient for precise ageing. Given the location of the observation point at the northern end of the gulf of Suez, most birds passed by in a northeasterly direction. Especially later in the day some flocks took a shortcut for some kilometres over the northern end of the gulf, passing us at a much lower altitude than they would have flying over land all the time. Both days were sunny, but we do not have detailed notes about the weather situation nor wind direction.

The counts for all raptor species are in Table 1. Many of the Steppe Eagles were immatures, showing the distinct light underwing band of the greater coverts. We

Table 1. Counts of migrating raptors from the rooftop of Suez youth hostel, 13 and 14 March 1985.

Species	13 March	14 March
Black Kite <i>Milvus migrans</i>	3	10
Egyptian Vulture <i>Neophron percnopterus</i>	40	104
Eurasian Griffon Vulture <i>Gyps fulvus</i>	1	4
Short-toed Snake Eagle <i>Circaetus gallicus</i>	132	175
Steppe Buzzard <i>Buteo b. vulpinus</i>	74	1216
Long-legged Buzzard <i>Buteo rufinus</i>	4	6
Eastern Imperial Eagle <i>Aquila heliaca</i>	2	1
Steppe Eagle <i>Aquila nipalensis</i>	334	5721
Lesser Spotted Eagle <i>Aquila pomarina</i>	13	6
Booted Eagle <i>Hieraetus pennatus</i>	1	-
Common Kestrel <i>Falco tinnunculus</i>	1	1
Lesser Kestrel <i>Falco naumanni</i>	1	-
Peregrine Falcon <i>Falco peregrinus</i>	-	1
unidentified eagles <i>Aquila</i> spp.	79	959
unidentified raptors	30	1133
raptors total	715	9337

also estimated the total number of Steppe Eagles passing, using the ratio of Steppe Eagles to total identified *Aquila* eagles, which resulted in 7574 Steppe Eagles on 14 March.

DISCUSSION

The most realistic number of migrating Steppe Eagles on 14 March was more than 7500 birds, if extrapolating their percentage from the identified birds to the almost 2100 unidentified ones and adding those to the sum. The maximum passage of Steppe Eagles in the Eilat area, Israel in 1985 was 6 March (Shirihai & Christie 1992), earlier than our peak count of 14 March, and the Eilat birds consisted mainly of adults, while we saw many immatures at Suez. The assumption of Shirihai & Christie (1992), that adults might show the tendency to shorten the way to the breeding grounds as much as possible and prefer the Red sea crossing at Djebel el Zeit (some 240 km south of Suez) is therefore supported by our observation.

1985 was an exceptional year for migration counts of Steppe Eagles in the Middle East. The annual mean count in Eilat for the six springs 1977, 1983 and 1985–1988 was 28 032 birds, with an outstanding maximum in 1985 of 75 053. Also, the peak day maximum was exceptional, with 14 164 birds on 6 March 1985, compared to a mean peak for the same years of 5207. It should be stressed, that the spring counts in Eilat in 1985 were carried out on 100 days from two to seven stations daily, using radio transmitters and vehicles. Also, large numbers of raptors were sighted west and north of Eilat towards the central Negev (all data from Shirihai & Christie 1992). Thus, the concentration of Steppe Eagles on 14 March at Suez might have been bigger than the peak count of Eilat, which likely is a combined sum of more than one location.

The weather in spring 1985 in eastern Egypt appeared exceptional. For the week after 14 March 1985, Steiof (1987) analyzed the weather situation on the occasion of a mass migration of White Storks *Ciconia ciconia* over Hurghada, with an estimated number of between 82 000 and 115 000 storks passing by within 1.5 h on 20 March 1985. This event was clearly triggered by the climatic situation: overnight before the 20th a low pressure front moved over northeastern Egypt, increasing the air pressure rapidly and changing wind direction from east/northeast to west/southwest. Obviously, Storks had interrupted their migration due to the headwinds before the 20th, likely in the Nile valley and maybe near Qena. After the weather situation changed completely with strong tailwinds establishing in the morning of that day and a blue sky, the mass of storks started their migration from the Nile valley. The birds, which normally fly northeastwards from Qena, arriving at the Red sea coast near Djebel el Zeit to cross the sea at this place, passed the desert between the Nile valley and the Red sea in a more eastern direction and thus met the coastline further south than normal, in Hurghada. There they re-orientated and flew northwards, following the coastline (for more details see Steiof 1987). On 21 March it rained heavily, and the road from Hurghada to Suez was blocked due to landslides.

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